What Explains Corporate *Sukuk* Primary Market Spreads?

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Abstract

This study investigates the determining factors of international corporate *sukuk* pricing in the primary market for the period of 2004-2015. We present novel evidence for a unique data set covering all 63 international corporate *sukuk* issuances consisting of both a fixed margin rating as well a credit rating score. Our cross-sectional analysis indicates that both credit rating and maturity are significant factors which reduce issue spreads, whereas *sukuk* margin rating increases issue spreads. More prominently, *Shari'ah* scholar reputation and the type of *sukuk* are not statistically significant factors in the explanation of the issue spread. Our results are comparable with determinants of conventional bond pricing, and our findings further confirm existing *sukuk* market practices.

Key words: Corporate *sukuk*, *sukuk* pricing, issue spread

1. Introduction

Islamic finance is an ethically and religiously established alternative financial method aimed at supporting the real economy. The focal characteristic feature of Islamic finance lies in its compliance with Islamic legal or *Shari'ah* rules, which includes the prohibition of interest and gambling as well as speculation and excessive uncertainty and essentialising profit-and-loss sharing and risk sharing financing (Asutay, 2015). Even though, in a contemporary sense, Islamic finance has been present in the financial scene for the last forty years, it has made considerable progress during the last two decades. In addition, the trade-financing and real-economy oriented Islamic finance industry has proved its reliability during the recent global financial crisis period.

As part of the successful growth trajectory, the total value of Islamic financial assets in global financial markets reached $1.814 trillion in 2014 (Thomson Reuters, 2015a). Despite such an unparalleled growth rate, the Islamic finance sector is still in a developmental stage with significant growth potential. It is projected that Islamic financial assets will reach $3.247 trillion 2020 (Thomson Reuters, 2015a).

Islamic banking and *sukuk* issuances are two of the most popular and widely accepted *shari'ah* compliant practices in the Islamic finance industry where Islamic banks are counterparts of conventional banks and *sukuk* provides the *shari'ah* compliant nature of conventional bonds. *Sukuk*, commonly known as Islamic bonds, is an investment certificate which is complaint with Islamic law. AAOIFI (Accounting and Auditing Organisation for Islamic Financial Institutions) (2010) defines *sukuk* as "certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services, or the assets of particular projects or special investment activity". In expanding, Godlewski *et al.* (2013) presented a detailed explanation on basic features of *sukuk*, categorisation of different *sukuk* types and historical developments in *sukuk* markets. There are basically three groups of *sukuk*: sale-based (*murabahah*), lease-based (*ijarah*) and equity-based (*mudarabah*, *musharakah* and *wakala*).

In terms of trends in the Islamic capital markets, statistics indicate that total nominal value of outstanding *sukuk* issues in global financial markets reached $295 billion as of 2014. This implies that following Islamic banking, *sukuk* is the second largest financial asset in Islamic financial industry. It is expected that the total value of global *sukuk* outstanding will have reached $395 billion by the year of 2020 (Thomson Reuters, 2016). While the weakening in oil prices may have an adverse impact on Islamic capital markets, the indicators shows that so as to overcome the budget deficit the GCC countries may opt for *sukuk* in bringing their infrastructural development which is expected to provide further impetus for the expansion of the Islamic capital market.

The aim of this study, hence, is to examine the determinants of the corporate *sukuk* spreads in international primary markets. We analysed a data set of 63 international corporate *sukuk* issued for the period of 2004-2015. We preferred to examine primary market spreads rather than that of secondary markets due to the low liquidity in the secondary corporate *sukuk* markets. Our cross-sectional analysis showed that, as it was expected, *sukuk* credit rating was the most important factor explaining the *sukuk* pricing at issue date. In addition to the credit

rating score, the maturity of *sukuk* issue as well as the size of *sukuk* issue are significant factors narrowing issue spreads, whereas *sukuk* margin rate increases issue spreads. More prominently, *shari'ah* scholar's reputation and type of *sukuk* are not statistically significant factors in explaining the issue spread. Our results are similar to determinants of conventional bond pricing and these results also confirm *sukuk* market practices. Conversely, our findings regarding the reputation of *shari'ah* scholars contradicts those of Godlewscki *et al*. (2016).

This paper continues as follow; Section 2 delivers a survey of the empirical studies in the field; while Section 3 explains our sample, data set and empirical methodology of analysis. Section 4 affords the results of our analysis and discussions. Section 5 concludes this study.

2. Literature Survey

Although *sukuk* markets are very vital for the development of the Islamic finance industry, the number of empirical studies analysing corporate *sukuk* issuances and pricing are comparatively limited. On the other hand, because corporate bond pricing is important for market players, related literature for conventional corporate bond pricing is very rich. Intuitively, the credit rating score of a corporate bond should be the most important factor affecting bond pricing. Nonetheless, some empirical studies, such as Elton *et al.* (2001, 2004), Collin-Dufresne *et al.* (2001), Huang and Huang (2003), Chen *et al.* (2007) revealed that the credit risk is not the only factor explaining corporate bond pricing in secondary markets. It should be noted that in empirical studies, bond pricing is usually measured by the spread between corporate bond yield to maturity and treasury bond yield to maturity. For instance, Elton *et al.* (2001, 2004) indicated that taxes, liquidity, maturity and other factors explaining risk premium for stocks are also significant for bond pricing. Rather than analysing the secondary corporate bond markets, Gabbi and Sironi (2005) discussed the importance of understanding determinants of corporate bond pricing in primary markets for all market participants emphasising that there are mainly two advantages of investigating corporate bond pricing behaviour that findings enable corporations to estimate cost of borrowing and they also indicate the role of credit rating agencies. In investigating factors affecting corporate bond pricing in primary Eurobond markets, Gabbi and Sironi (2005) found that credit ratings are the most important determinants of primary market spread. Moreover, Fridon and Garman (1998) examined the likely determinants of spreads for high-yield bonds in U.S. primary markets and conclude that credit rating is the most important factor for high-yield bond pricing and underwriter reputation can be a significant factor to narrow the spread. In line

with same methodology, Paiva and Savoia (2009) analysed possible variables which may affect corporate bond pricing in Brazil. They find that inflation, credit risk and maturity are significant factors in explaining corporate bond pricing in Brazil.

Spread between corporate *sukuk* yield to maturity and treasury bond yield to maturity is a direct sign of credit risk. The expectation is that the higher the credit rating of *sukuk* is, the narrower the primary spread ought to be. Beyond credit risk is measured through credit rating scores, liquidity, tax-related variables, manager reputation, and macroeconomic variables which can all affect the spread. Unlike conventional corporate bonds, *sukuk* must be approved by a *shari'ah* board in terms of its *shari'ah* compliancy related to structure and contents at the date of issue. Along with previous factors, we questioned the role of *Shari'ah* board reputation and type of *sukuk* in primary market pricing.

Most investors reflect religious motives in their decisions to invest in international corporate *sukuk* market. The *shari'ah* compliance of corporate *sukuk* issues is assured by *shari'ah* scholars and without such an assurance *sukuk* cannot be offered to the market. Investors can change their demand on the related *sukuk* issuance through examining the quality of the *shari'ah* compliance of the *sukuk* in question. For instance, if there is doubt regarding the quality of *shari'ah* committee which approves *sukuk* issue, then investors may be reluctant to invest in this *sukuk*.

In one of few empirical studies related to *sukuk*, Godlewski *et al.* (2013) examined the stock market reaction to *sukuk* issuance in Malaysia and find that stock market prices respond negatively to new *sukuk* issue news. Recently again Godlewski *et al.* (2016) have analysed stock market reaction to 131 *sukuk* issuances, from eight different countries, for the period 2006-2013, by conducting an event study methodology. Godlewski *et al.* (2016) found that market reacts positively to announcement of *sukuk* issue in which highly reputable *shari'ah* scholars participated. Godlewski *et al.* (2016) found that the type of *sukuk* may also affect pricing in the primary market; as their result showed that market players might react negatively to equity-based *sukuk* issuance, but not to sale-based or lease-based *sukuk* issuances. They further found that the announcement of lease-based *ijara sukuk* issue increased firm value of the issuer.

3. Research Methodology, Sample and Data

We collected the relevant data from two different sources; (a) Thomson Reuters Zawya database, and (b) Bloomberg database. Our sample consists of all international corporate *sukuk* issuances which have both fixed marginal rates and credit rating scores during the period of 2004-2015. In the Zawya database, there are 129 international corporate *sukuk* issuances during the sample period, but we eliminated 62 issuances due to floating marginal rate or data unavailability. We also dropped 4 outliers from the dataset. The origins of issuers are from nine countries; Bahrain, Indonesia, Luxembourg, Malaysia, Qatar, Saudi Arabia, Turkey, United Arab Emirates, and United States.

Sukuk markets are still at their developing stages in most of the national markets and the number of corporate *sukuk* issuances is limited in most national bond markets, with the exception of Malaysia. Hence, we prefer to analyse international *sukuk* issuances rather than national issuances. In addition, we choose to examine the primary market data rather as opposed to the secondary market data due to the low liquidity in the secondary corporate *sukuk* markets. Another reason for using the primary market data is related to the up-to-date feature of credit rating scores around the issue date. As it is emphasised by Gabbi and Sironi (2005), corporations generally refresh their credit ratings just before the new bond issuance. Lastly, Gabbi and Sironi (2005) assert that primary markets spreads are better pricing indicators for borrowing instruments.

The issue spread between corporate *sukuk*'s yield to maturity and a comparative treasury bond's yield to maturity indicates which reflect the investors' evaluation of several risk factors related to the issue. These risk factors are default risk, liquidity risk, primary market efficiency, tax features (Gabbi and Sironi, 2005) and *Shari'ah* compliance risk. Following Gabbi and Sironi's (2005) methodology, we use the equation (1) to uncover possible factors affecting the international corporate *sukuk* spreads.

$$Spread_i = \propto + Default_i + Liquidity_i + Tax_i + Efficiency_i + Shari'ah_i + Others_i + \varepsilon_i \quad (1)$$

where *Spread* is the dependent variable measuring the difference between each international corporate *sukuk*'s yield to maturity and the corresponding U.S. dollar treasury bond's yield to maturity at an issue date for each *sukuk* issue, for instance; *Spread* is a sign of *sukuk* pricing and cost of borrowing for the issuer. Spreads are accessed through the Bloomberg database.

Following a related classification of Gabbi and Sironi (2005), we can group our independent variables into six basic categories of 'Default', 'Liquidity', 'Tax', 'Efficiency', '*Shari'ah*' and 'Others'. The first group, 'Default', consists of four different variables that are: 'Rating', 'Senior', 'Financial' and 'Maturity' variables. Rating indicates the credit rating score of each corporate *sukuk* issue, which is the main indicator of the default risk of a *sukuk* issue. We construct a credit rating score index as a continuous variable by using Moody's, Standard and Poors as well as Fitch credit ratings on each *sukuk*. Credit rating scales and our credit rating index are reported in Appendix 1. If there are more than one rating score for a *sukuk* issuance, we calculate the mean value of all scores. We expect a negative relationship between Spread and Rating that Spread should decline as rating scores increase. Senior measures whether a *sukuk* issuance is a senior or subordinated issuance. In the case of default, senior debtholders are given priority for the payment and then thereafter subordinated debtholders are paid. A dummy variable for 'Senior' is introduced: 1 if the *sukuk* issue is Senior, 0 otherwise. We expect a negative coefficient for this dummy variable, because subordinated debtholders will demand higher yield to maturity in comparison to senior debt holders. 'Financial' is another dummy variable which is 1, if the issuer is a financial sector firm, 0 otherwise. Since most governments guarantee the debts of financial firms to ensure stability in financial markets, the sign of this variable's coefficient may be negative. Maturity is defined as the time to reach maturity of each *sukuk* in terms of the year. We expect that longer maturity leads to higher spread due to higher uncertainity in longer periods.

Along with default risk, there are other factors which may affect *sukuk* pricing as discussed by Elton et al. (2003). The second group of independent variables represents liquidity risk in the secondary market of *sukuk* and there is only one variable in this group, namely; 'liquidity'. 'Amount' is the only variable measuring the nominal value of international corporate *sukuk* issuance as natural logarithm. We assume that larger corporate *sukuk* issuances will have higher liquidity in the secondary market.

The third group consists of the only tax-related variable 'margin', which measures the annual marginal rate of each international corporate *sukuk*. Elton et al. (2003) stated that capital gains are taxed at sales dated while coupons are taxed at the date of coupon payments. In other words, bonds which have lower coupon rates are more valuable due to postponed tax payments (tax timing advantage). Similar to bonds, *sukuk* with higher margin rates might lead

to higher tax burden for investors. Contingent on this reasoning, we expected a positive coefficient for this variable.

Another group of independent variables, 'efficiency', represents primary *sukuk* market efficiency. This group contains variables representing the quality and number of advisors which participate in *sukuk* issuances in addition to listing in exchanges as well. 'Manager Reputation' designates the total market power of all managers which take part in each corresponding *sukuk* issuance. Advisors comprises lead managers, co-managers and book runners. For this, initially, we construct a reputation index for each manager in international corporate *sukuk* market by dividing nominal value of *sukuk* issuances managed by each manager to total nominal value of all international corporate *sukuk* issuances during the sample period (this reputation index is a based on a value-based league table). Subsequently, we sum reputation indices of all advisors in each *sukuk* issuance so that we calculate a manager reputation score for each *sukuk* issuance. Higher manager reputation allows higher demand (investors) for the managed corporate *sukuk* issue so that issue spread is weakened. Therefore, we expect a negative relationship between issue spread and manager reputation. Alternative measure for primary *sukuk* market efficiency is 'Manager Number', which is an indicator for the total number of advisors taking part in the issuance of *sukuk*. In conclusion, we used 'Private' variable which indicated whether *sukuk* issue takes place in an exchange or not. If *sukuk* issue is listed in an exchange, this dummy variable is 1; if the issue is private and not listed in any exchange, this dummy variable is 0.

Unlike conventional bond issuances, as previously mentioned, *sukuk* issuers have to assure that *sukuk* structure is in compliance with *shari'ah* rules. For this, *Shari'ah* scholars act as assurance service providers so that investors can meet the religious criteria to confidently invest in these financial instruments. Consequently, the quality of *shari'ah* compliance services might affect investor behaviour and, therefore, pricing of *sukuk*. To measure the quality of *shari'ah* compliance of each *sukuk* issue we use '*Shari'ah* Reputation' variable, which denotes the total market power of the *shari'ah* scholars who provide *shari'ah* compliance assurance services related to the corresponding *sukuk* issuance. In the definition and estimation of this variable, individual scholars are considered rather than *shari'ah* board/committee of institutions. For this, firstly, we constructed a reputation index for each *shari'ah* scholar in international corporate *sukuk* market by dividing nominal value of *sukuk* issuances approved by each scholar to total nominal value of all international corporate *sukuk*

issuances during the sample period (this reputation index is like a value-based league table). Subsequently, we summed the reputation indices of all scholars participated in each *sukuk* issue so that we calculate a *shari'ah* reputation score for each *sukuk* issue. If investors considered the quality of *shari'ah* compliance in their investment decisions, they could increase their demand on *sukuk* issuances with high *shari'ah* reputation. Therefore, higher demand might lead to a narrow spread. Alternative measure for the quality of *shari'ah* compliance is 'Shari'ah Scholar Number' and this variable stands for the total number of scholars taking part in each *sukuk* issuance.

Over and above preceding independent variables, we add other control variables to our empirical model. Since the structure of *sukuk* might affect pricing, consequently, we use 'Type' dummy variables for three different *sukuk* structures, sale-based *sukuk* (*murabahah*), lease-based *sukuk* (*ijarah*) and equity-based *sukuk* (*mudarabah*, *musharaka* and *wakala*). Type dummy variable is 1 if issuance is structured as corresponding *sukuk* type, 0 otherwise. 'VIX', as a variable, stands for volatility index of the U.S. equity markets and this variable is used to measure the volatility in the financial markets at the date of *sukuk* issuance. 'Political Risk' is an additional control variable measuring institutional and political factors across different countries. We use political risk points of International Country Risk Guide prepared by the PRS Group, which are corresponding points at the month of individual *sukuk* issued.

Table 1 presents an overall summary statistics for our sample, while Table 2 presents summary statistics by year and country. As can be seen, the average issue size is USD564.3 million; average issue spread is 301.2 basis points; average maturity is 6.7 years; average margin rate is 4.7% and median rating index is 0.714 which equals to credit rating scale of A3, A- and A-. The majority of the *sukuk* is structured as senior, while 34 of issuers operate in financial sector whereas 29 of them are industrial firms. Moreover, as the results depict, 39 of *sukuk* issuances are organised as equity-based; 20 of them are structured as lease-based and only 4 of them are structured as sale-based.

It should be noted that despite covering 2004-2015 period and nine countries; due to availability of data our observations are concentrated in the period after the financial crisis period (2011-2015), and motivated mostly towards four countries, Qatar, Saudi Arabia, Turkey and United Arab Emirates. In terms of estimation method, this cross-sectional model is projected with ordinary least squares method.

Table 1: Summary Statistics

	Spread (Basis Points)	Default				Liquidity	Tax	Efficiency					Type of Sukuk			VIX Volatility Index	Political Risk Score
		Rating (Index)	Senior (Dummy)	Financial (Dummy)	Maturity (Year)	Amount (Million USD)	Margin (%)	Manager Reputation (Index)	Manager Number	Shari'ah Reputation (Index)	Shari'ah Scholar Number	Private (Dummy)	Equity-Based (Dummy)	Lease-Based (Dummy)	Sale-Based Dummy)		
Mean	301.2	0.698	0.952	0.540	6.7	564.3	4.7	1.223	1.8	5.484	5.8	0.079	0.619	0.317	0.063	17.0	72.7
Median	245.0	0.714	1	1	5.0	500.0	4.3	1.145	1.5	5.000	5.0	0	1	0	0	15.4	76.5
Minimum	68.2	0.333	0	0	3.0	20.0	2.1	0.005	0.0	1.000	1.0	0	0	0	0	10.6	52.5
Maximum	970.4	1.167	1	1	30.0	1,500	12.0	2.560	5.8	15.000	24.0	1	1	1	1	33.5	88.5
Stand. Dev.	181.0	0.163	0.215	0.502	4.7	319.7	1.8	0.621	1.3	2.671	4.5	0.272	0.490	0.469	0.246	5.3	8.3
N	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
N for 1	-	-	60	34	-	-	-	-	-	-	-	58	39	20	4	-	-
N for 0	-	-	3	29	-	-	-	-	-	-	-	5	24	43	59	-	-

Table 2: Summary Statistics (by year and country)

Year	Number of Sukuk	Mean								
		Spread (Basis Points)	Rating (Index)	Amount (Million USD)	Margin (%)	Maturity (Year)	Manager Reputation (Index)	Shari'a Scholar Reputation (Index)	VIX Index	Political Risk Score
2004	1	250.0	0.571	100.0	4.6	5.0	0.116	1.215	14.9	77.5
2007	3	339.1	0.730	876.7	6.4	7.3	0.599	0.826	17.6	77.5
2008	1	170.0	0.762	300.0	5.7	5.0	0.159	0.793	29.0	79.0
2009	1	175.0	0.929	500.0	6.2	5.0	0.405	1.396	24.7	83.0
2010	3	306.1	0.706	533.3	5.9	4.3	1.042	1.497	22.5	69.5
2011	7	323.4	0.712	485.7	6.2	5.1	1.468	2.379	24.6	74.8
2012	12	308.5	0.728	595.8	6.3	5.7	1.458	1.797	18.5	74.3
2013	14	363.7	0.624	569.3	6.0	8.1	1.083	2.135	13.6	71.3
2014	12	322.3	0.622	565.8	6.1	7.9	1.195	1.795	13.0	69.5
2015	9	168.5	0.832	568.1	6.3	6.3	1.574	1.725	15.9	72.2
Total	**63**	**301.2**	**0.698**	**564.3**	**6.1**	**6.7**	**1.223**	**1.834**	**17.0**	**72.7**

Country	Number of Sukuk	Mean								
		Spread (Basis Points)	Rating (Index)	Amount (Million USD)	Margin (%)	Maturity (Year)	Manager Reputation (Index)	Shari'a Scholar Reputation (Index)	VIX Index	Political Risk Score
Bahrain	1	536.1	0.571	130.0	4.9	7.0	0.079	0.895	19.0	73.5
Indonesia	1	447.7	0.571	500.0	6.2	5.0	1.859	2.639	13.7	55.0
Luxembourg	2	622.1	0.619	30.0	3.3	5.0	0.005	0.754	16.6	88.3
Malaysia	4	120.8	0.810	325.0	5.7	6.7	1.124	3.312	16.8	71.5
Qatar	5	192.7	0.792	840.0	6.7	5.0	1.260	2.034	16.8	72.8
SA	11	272.2	0.741	786.4	6.5	10.7	0.941	1.734	14.5	67.2
Turkey	7	424.7	0.544	357.1	5.8	5.4	1.100	1.778	17.3	55.3
UAE	30	302.2	0.692	573.8	6.2	6.0	1.492	1.745	17.9	77.8
US	2	132.5	0.846	500.0	3.4	5.0	0.740	1.598	18.7	81.3
Total	**63**	**301.2**	**0.698**	**564.3**	**6.1**	**6.7**	**1.223**	**1.834**	**17.0**	**72.7**

4. Analysis and Results

Table 3 reports estimation results of cross-sectional model explained in the preceeding section. We estimated two different models; model 1 includes the manager reputation index and *shari'ah* reputation, while model 2 includes manager number in addition to the *Shari'ah* scholar number.

Table 3: Estimation Results of Linear OLS Cross-sectional Models

$$Spread_i = \alpha + Default_i + Liquidity_i + Tax_i + Efficiency_i + Sharia_i + Other_i + \varepsilon_i$$

Dependent Variable: Spread	Model 1	Model 2
Default Variables		
Rating	-210.1**	-234.0**
	(-2.15)	(-2.36)
Senior Dummy Variable	26.2	26.6
	(0.54)	(0.55)
Financial Dummy Variable	5.5	7.0
	(0.21)	(0.26)
Maturity	-6.1**	-6.1**
	(-2.37)	(-2.30)
Liquidity Variables		
Amount	-34.1*	-29.4
	(-1.81)	(-1.59)
Tax Variables		
Margin	74.6***	70.4***
	(8.21)	(7.58)
Efficiency Variables		
Manager Reputation	33.1	
	(1.46)	
Manager Number		4.8
		(1.03)
Private Dummy Variable	-68.9	-68.4
	-(1.53)	-(1.50)
Sharia Variables		
Shari'a Reputation	0.3	
	(0.03)	
Shari'a Scholar Number		-1.6
		-(0.64)
Other Variables		
Sale-based Dummy Variable	-2.8	2.6
	-(0.06)	0.05
Leased-based Dummy Variable	0.1	12.0
	(0.00)	0.24
Equity-based Dummy Variable		
VIX Volatility Index	-0.2	-0.505
	-(0.11)	-0.210
Political Risk Score	-0.8	-0.739
	-(0.61)	-0.540
Constant	349.7*	371.1*
	(1.91)	(1.96)
R^2	0.855	0.852
Adjusted R^2	0.817	0.812
F statistics	22.3***	21.6***
N	63	63

Notes: t-statistics are reported in parenthesis. *, **, *** indicate 10%, 5% and 1% significance levels respectively. Mean Variance Inflation Factors are below 5. Residuals are normally distributed and have homoscedastic variance.

The coefficients of Rating variable are negatively and statistically significant at a 5% level in two models representing an inverse relationship between the issue spread and the credit rating score. Since we recognised that *sukuk* issue spreads a reduction as credit rating scores are higher, the result is in line with our expectation. The coefficient of Maturity moreover indicates a statistically significant negative relationship between the issue spread and maturity of *sukuk*. This suggests that *sukuk* with longer maturity tend to have higher issue spreads in the primary markets. As the findings show, other default related variables, namely senior and financial dummy variables, do not have statistically significant coefficients.

Proxy variable for the liquidity, namely amount, has negative coefficients in two models, but merely the coefficient of model 1 is statistically significant at the 10% level. These results indicate restricted evidence that the size of *sukuk* issue have a positive effect on pricing. In other words, *sukuk* spreads a decrease as a nominal value of *sukuk* issue increases. Elton *et al.*'s (2003) finding is in line with this result; as they likewise did not find any significant impact of bond value outstanding and bond pricing.

The only tax-related variable which has statistically significant positive coefficients in all models is the Margin indicating that investors favour *sukuk* issued at lower margin rates as a result of the additional tax burden. This is due to the fact that investors demand higher revenue to compensate for the tax disadvantage regarding *sukuk* with higher annual marginal payments.

When we scrutinise the coefficients of variables concerning primary Market Efficiency, we find no statistically significant relationship between the issue spread and variables of efficiency. In other words, as can be seen in the results of all models Manager Reputation, Manager Number and Private Issuance do not account for the cross-sectional variation in *sukuk* spreads.

Explanatory variables regarding *Shari'ah* compliance risk, *Shari'ah* Reputation, as well as the *Shari'ah* Scholar Number, are not statistically significant in either of the two models, which further indicates that investors do not consider the quality of the *Shari'ah* committee in their decisions to demand *sukuk*. Consequently, there is no relationship between *sukuk* spreads and

the *Shari'ah* reputation index/*Shari'ah* scholar number. It should be noted that our findings in this section are incongruent with Godlewski *et al*. (2016), as they, on the contrary, found a statistically significant positive relationship between the reaction of stock market price to *sukuk* issue and *shari'ah* scholar reputation.

Other *sukuk*-related independent variables relate to the structure or type of *sukuk*: Sale-based *sukuk*, lease-based *sukuk* and equity-based *sukuk* dummy variables. One of these dummy variables is omitted in each model due to collinearity. Nevertheless, as the results demonstrate none of these dummy variables are statistically significant in either of the models. These findings may imply that the *sukuk* structure does not affect the pricing of *sukuk*, or since the credit rating methodology may have already considered of a type of *sukuk*, the structure may not be a significant determinant.

Finally, as the results in Table 3 depicts, both volatility index and political risk scores of regarding countries are included in model 1 and 2, are not statistically significant.

5. Conclusion

This study presented one of the few empirical studies on the corporate *sukuk* market, in which an attempt was made to identify important factors influencing the international corporate *sukuk* spreads. We have analysed cross-sectional observations of 63 international corporate *sukuk* issuances, from 9 different countries, over the period of 2004-2015. The results show that the credit rating score, size of the *sukuk* issue, as well as the annual margin rate on *sukuk* are statistically significant factors explaining the cross-sectional variations in corporate *sukuk* spreads. In contrast, *sukuk* specific factors such as quality of *shari'ah* compliance, and the type of *sukuk* does not bear any significant effect on issue spreads.

We can, consequently, conclude that determining factors of *sukuk* issuance spreads are similar to those of conventional bond issue spreads. As we predicted, corporations with higher credit risks have to bear higher borrowing costs in international corporate *sukuk* markets. Our results are congruent with results of a recent survey (by Thomson Reuters, 2015b: 49), which was completed by market participants; it also found that the *sukuk* rating, the type of issuer, as well as global market stability are the most significant factors affecting the pricing of *sukuk* issuance spreads.

More prominently, the findings imply that investors do not consider the quality of *shari'a*h scholars participating with regards to the *sukuk* issue. There are two conceivable explanations for this finding. Firstly, the concentration rate among *shari'ah* scholars in international corporate *sukuk* issuance numbers is so high that a few scholars contribute in almost all *sukuk* issuances due to the limited number of reputable *shari'ah* scholars. If investors purely deliberate on these top-rated scholars by disregarding other scholars on quality of *shari'ah* compliance, there will be no variation among *shari'ah* scholar reputation indices of *sukuk* issuances, which makes the coefficient of this variable insignificant. The second possibility is that investors merely consider whether there is a *shari'ah* board/committee or not, and they do not consider the reputation of specific scholars in the board. Therefore, the rational behaviour of individual *sukuk* holders can explain these results, as religious investors would accept 'a *Shari'ah* compliant *sukuk*' irrespective of a particular *Shari'ah* scholar. Such an attitude is identified by Vogel and Hayes (1998: 27, footnote) in describing the nature of demand for Islamic finance as "socially and politically conservative, seeking individual piety and social mores built around traditionalist compliance with *fiqh*…". Thus, as long as *fiqhi* rationale or *Shari'ah* compliance is delivered, by whom it is provided may not be an essential issue for the demand side in Islamic finance. This is due to the fact that the *Shari'ah* legitimacy imposed by *Shari'ah* scholars creates a hegemony which may not allow the reputation to be questioned. As for the international investors, for them the most important factor would be the quantitative screening and potential returns, as they may not be particularly concerned with *Shari'ah* compliancy process nor with the *Shari'ah* scholar involved in the process; of course, they would also consider the impact of reputation risk on the return of the *sukuk* issuance.

In conclusion, the examining and analysing of factors affecting the primary *sukuk* market pricing should be of interest for corporations issuing *sukuk* in international markets. The main implication is that companies can lower their cost of borrowing by changing firm-specific and *sukuk*-specific factors.

Appendix 1. Rating Scales of 3 Rating Agencies

Moody's		Standard & Poor's		Fitch	
Rating Scale	Rating Index	Rating Scale	Rating Index	Rating Scale	Rating Index
Aaa	1.000	AAA	1.000	AAA	1.000
Aa1	0.952	AA+	0.952	AA+	0.952
Aa2	0.905	AA	0.905	AA	0.905
Aa3	0.857	AA-	0.857	AA-	0.857
A1	0.810	A+	0.810	A+	0.810
A2	0.762	A	0.762	A	0.762
A3	0.714	A-	0.714	A-	0.714
Baa1	0.667	BBB+	0.667	BBB+	0.667
Baa2	0.619	BBB	0.619	BBB	0.619
Baa3	0.571	BBB-	0.571	BBB-	0.571
Ba1	0.524	BB+	0.524	BB+	0.524
Ba2	0.476	BB	0.476	BB	0.476
Ba3	0.429	BB-	0.429	BB-	0.429
B1	0.381	B+	0.381	B+	0.381
B2	0.333	B	0.333	B	0.333
B3	0.286	B-	0.286	B-	0.286
Caa1	0.238	CCC+	0.238	CCC+	0.238
Caa2	0.190	CCC	0.190	CCC	0.190
Caa3	0.143	CCC-	0.143	CCC-	0.143
Ca	0.095	CC	0.095	CC	0.095
C	0.048	C	0.048	C	0.048

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